

Remarks:

Claim Rejections – 35 U.S.C. § 112 ¶ 2

The Examiner rejected claims 16-20 based on 35 U.S.C. § 112 ¶ 2 as indefinite for failing particularly to point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner indicated that claims 16-20 depend from independent claim 11; claim 11 claims a *high* pressure trapping system, while claims 16-20 claim a *low* pressure trapping system. As such, the *low* pressure trapping system set forth in claims 16-20 lacks antecedent basis and claims 16-20 are indefinite.

Applicant respectfully submits that claims 16-20 are now amended to claim the *high* pressure trapping system for which there is antecedent basis in independent claim 11. Applicant's response fully obviates the Examiner's rejection of claims 16-20 based upon 35 U.S.C. § 112 ¶ 2. Accordingly, Applicant respectfully requests the Examiner's reconsideration of claims 16-20.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected claims 1-7, 11-15, and 18-20 as being obvious over Varrin, Jr. et al. (U.S. Pat. No. 5,015,503) in view of Waller et al. (U.S. Pat. No. 4,973,002). The Examiner noted that while Varrin does not teach the use of transparent hollow connectors, Waller does (Col. 3, ll. 56-60).

Applicant respectfully disagrees that the present claimed invention is obvious over Varrin in view of Waller. To rely on a reference under 35 U.S.C. § 103, the art must be analogous. MPEP § 2141.01(a).

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be *reasonably pertinent* to the particular problem with which the inventor was concerned.

MPEP § 2141.01(a)(citing *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)(emphasis supplied). A reference is considered "reasonably pertinent" if "even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." MPEP § 2141.01(a) (quoting *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61

(Fed. Cir. 1992).

Here, Varrin does not teach a linear system, as does the present invention. Applicant's claimed invention is a high pressure vapor trapping system that is driven by a vacuum pump connected downstream from the processing chamber and upstream from the hot trap, and the hot trap is connected upstream from the cold trap. The disclosed and claimed system is connected and operated linearly. In contrast, Varrin teaches a closed-loop re-circulating flow system that operates by thermosiphon flow. (Abstract.) The apparatus in Varrin is not apparently set up to connect the various elements linearly. Applicant respectfully submits that it would not be obvious to one of ordinary skill in the art to manipulate the numerous valves associated with the Varrin apparatus so that the Varrin apparatus is connected in the same way as the present claimed invention; that is, in a linear mode arranged, from upstream to downstream, with a vacuum pump, hot trap, at least one cold trap, and a waste exhaust. In fact, Varrin appears to teach away from the present Applicant's invention. In particular, fig. 7 of Varrin, discussed at Col. 7, ll. 31-39, indicates that when the apparatus is operated in once-through mode, no vacuum pump is used, and most of the apparatus is kept cold, *i.e.*, without a hot trap. Applicant respectfully requests that should the Examiner disagree with Applicant's understanding of Varrin, that the Examiner indicate the part of the disclosure of Varrin upon which the Examiner relies for Applicant to address in any future Office Actions that may be based on Varrin.

Moreover, the field of Applicant's endeavor is different from the field of endeavor of Waller. Specifically, the invention disclosed in Waller is a macerator used for reducing solid paper pulp products. (Abstract.) The apparatus disclosed and taught in Waller is used to reduce fibrous products, such as paper pulp bedpans, urine bottles, and the like, for discharge into a sewer. Col. 1, ll. 5-9. In use, a paper pulp article is placed inside a drum, water is fed into the drum, and the contents are reduced to slurry by rotating blades. Col. 6, ll. 9-66. The first part of the outlet pipe from the drum is transparent to view the flow of pulp out of the drum. Col. 3, ll. 55-60. In contrast, the present claimed invention is an apparatus used in semiconductor processes using vapor precursors for processing thin films on an integrated circuit substrate. Application at 2. The disclosed apparatus is used to further chemical reactions and to trap toxic waste by-products. The fields of endeavor of Applicant and Waller therefore are not related.

The next issue is, accordingly, whether the art in Waller is "reasonably pertinent" to the

particular problem with which Applicant was concerned. Applicant respectfully submits that Waller teaches non-analogous art because the field of endeavor of Waller is not reasonably pertinent to the particular problem with which the present claimed invention is concerned. The present invention addresses monitoring the adequacy and/or efficiency of a cold trap portion of an apparatus for processing a semiconductor wafer. Application at 2. The objective is efficient abatement for reaction precursors and byproducts. *See, e.g.*, Application at 2, lines 23-26; 3, lines 1-9, 21-25; 4, lines 21-22. In contrast, the particular problem addressed by Waller is unrelated to toxic waste abatement in processing of semiconductors. Rather, the objects of the invention are (1) “to provide a reducing device which reduces articles to the necessary size efficiently” (Waller et al., Col. 1, ll. 57-59); and (2) “to provide an improved valve, and in particular, but not exclusively, a valve which is suitable for use with a device for reducing fibrous products.” (Waller et al., Col. 2, ll. 18-21.) The transparency of the first part of the outlet pipe and visualization of the pulp is not indicated to be part of the problem addressed by the invention taught and disclosed by the present Applicant.

Because Waller is not in the same field of endeavor as the Applicant’s invention, and because Waller is not “reasonably pertinent” to the chemical waste problem that Applicant’s invention addresses in the context of processing thin films on integrated circuit substrate, Waller cannot be “analogous prior art” for purposes of analyzing the obviousness of the subject matter of Applicant’s invention.

Applicant therefore respectfully submits that none of the submitted claims are obvious over Varrin in view of Waller, and on that basis, respectfully requests that the Examiner reconsider the obviousness rejection.

The Examiner based a further rejection of claims 8-10 under 35 U.S.C. § 103(a) upon Varrin and Waller, in further view of Sikander et al. (U.S. Pat. No. 4,468,011). Claims 8-10 (as amended) add the limitation of a drain port connected with transparent hollow connector(s) to collect waste material. The Examiner contends that the invention that is the subject of the present application is obvious because (1) Sikander teaches a drain port which is not transparent; (2) Varrin teaches all other limitations other than the drain port and transparent hollow connectors; (3) Waller teaches a transparent drain section; and therefore (4) it would have been obvious to one of ordinary skill in the art to have a transparent drain. Office Action at 3-4.

Applicant respectfully submits that because the Examiner applies the same motivation as

used in the above rejection with regard to Varrin in view of Waller, Office Action at 4, the rejection of claims 8-10 in further view of Sikander cannot stand for the reasons delineated above.

Co-Pending Application

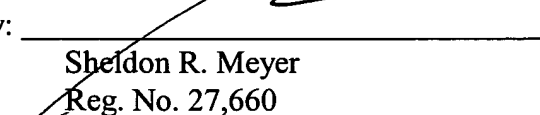
Applicant hereby discloses to the Examiner of the present application the co-pending application, attorney docket number SIM013 (now TEGL01191US0/SRM), U.S. Pat. App. No. 09/589,636, filed on June 7, 2000. A first office action in that case was mailed on March 24, 2004. The Examiner in the March 24, 2004 office action made a double-patenting rejection based on the pendency of the instant application. A terminal disclaimer will be filed to overcome the rejection in the co-pending case.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

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Respectfully submitted,

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